

PROJECT SPECIAL PROVISION

(10-18-95)

Z-1

PERMITS

The Contractor's attention is directed to the following permits, which have been issued to the Department of Transportation by the authority granting the permit.

<u>PERMIT</u>	<u>AUTHORITY GRANTING THE PERMIT</u>
Dredge and Fill and/or Work in Navigable Waters (404)	U. S. Army Corps of Engineers
Water Quality (401)	Division of Environmental Management, DENR State of North Carolina
Stormwater	Division of Environmental and Natural Resources, DENR, State of North Carolina

The Contractor shall comply with all applicable permit conditions during construction of this project. Those conditions marked by * are the responsibility of the department and the Contractor has no responsibility in accomplishing those conditions.

Agents of the permitting authority will periodically inspect the project for adherence to the permits.

The Contractor's attention is also directed to Articles 107-10 and 107-14 of the *Standard Specifications* and the following:

Should the Contractor propose to utilize construction methods (such as temporary structures or fill in waters and/or wetlands for haul roads, work platforms, cofferdams, etc.) not specifically identified in the permit (individual, general, or nationwide) authorizing the project it shall be the Contractor's responsibility to coordinate with the Engineer to determine what, if any, additional permit action is required. The Contractor shall also be responsible for initiating the request for the authorization of such construction method by the permitting agency. The request shall be submitted through the Engineer. The Contractor shall not utilize the construction method until it is approved by the permitting agency. The request normally takes approximately 60 days to process; however, no extensions of time or additional compensation will be granted for delays resulting from the Contractor's request for approval of construction methods not specifically identified in the permit.

Where construction moratoriums are contained in a permit condition which restricts the Contractor's activities to certain times of the year, those moratoriums will apply only to the portions of the work taking place in the waters or wetlands provided that activities outside those areas is done in such a manner as to not affect the waters or wetlands.

DEPARTMENT OF THE ARMY PERMIT**Permittee:** NORTH CAROLINA DEPARTMENT OF TRANSPORTATION**Permit No:** SAW-2009-00032**Issuing Office:** USAED, WILMINGTON

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of the office acting under the authority of the commanding officer.

You are authorized to perform work in the accordance with the terms and conditions specified below.

Project Description: The project, identified as U-4006, consists of extending SR 4126, also known as Bridford Parkway, on new location from its existing northern terminus at Hornaday Road, south of I-40 Business, to the intersection of Burnt Poplar Road and Swing Road, north of I-40 Business. The cross section of this project will consist of a four-lane median divided facility with curb and gutter. Total permanent impacts for this construction of this project are 548 linear feet of perennial stream channel, including 69 linear feet of impacts due to bank stabilization activities. Temporary impacts total 99 linear feet of the perennial stream channel, associated with equipment and construction access. The applicant will mitigate for unavoidable impacts to streams by payment into the North Carolina Ecosystem Enhancement Program in the amount necessary to perform the restoration of 450 linear feet of important warm water streams at a 2:1 ratio and 98 linear feet of warm water streams at a 1:1 ratio within the in the Cape Fear River Basin (HUC 03030002).

Project Location: The project, known as U-4006, begins at the intersection of SR 1541 (Wendover Avenue) at Hornaday Road and extends 1.1 miles northwestward to the intersection of Burnt Poplar Road at Swing Road in Greensboro, Guilford County, North Carolina. Coordinates (in decimal degrees) for the site are 36.0665° N, -79.9043° W. The site contains the headwater portion of South Buffalo Creek and one unnamed tributary to South Buffalo Creek, which flow to Buffalo Creek and Reedy Fork downstream of the project site. Buffalo Creek and Reedy Fork are tributaries to the Haw River, which flows to Cape Fear River, a navigable water of the United States.

Permit Conditions:

General Conditions:

1. The time Limit for completing the work authorized ends on December 31, 2014 If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Conditions 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

*SEE ATTACHED SPECIAL CONDITIONS

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- () Section 10 of the Rivers and Harbors Act of 1899 (33 U.S. C. 403).
- (X) Section 404 of the clean Water Act (33 U.S.C. 1344).
- () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United states in the public interest.

- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. **Reliance on Applicant's Data:** The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. **Reevaluation of Permit Decision.** This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measure by contract or otherwise and bill you for the cost.

6. **Extensions.** General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

E. P. Luck for Gregory J. Thorpe, PhD June 16, 2009
 (PERMITTEE) NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

 (DISTRICT Engineer) JEFFERSON M. RYSCAVAGE
 COLONEL, U. S. ARMY
 DISTRICT COMMANDER

 (DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

 (Transferee)

 (Date)

SPECIAL CONDITIONS (Action ID. 2009-00032); North Carolina Department of Transportation/TIP U4006)

Work Limits

1. All work authorized by this permit must be performed in strict compliance with the attached plans, which are a part of this permit. Any modification to these plans must be approved by the US Army Corps of Engineers (USACE) prior to implementation.

2. Except as authorized by this permit or any USACE approved modification to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area. This prohibition applies to all borrow and fill activities connected with this project.

3. Except as specified in the plans attached to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within waters or wetlands or to reduce the reach of waters or wetlands.

Related Laws

4. All mechanized equipment will be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the N.C. Division of Water Quality at (919) 733-5083, Ext. 526 or (800) 662-7956 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

Project Maintenance

5. The permittee shall advise the Corps in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.

6. Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source and will be clean and free of any pollutants except in trace quantities. Metal products, organic materials (including debris from land clearing activities), or unsightly debris will not be used.

7. The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this

SPECIAL CONDITIONS (Action ID. 2009-00032); North Carolina Department of Transportation/TIP U4006)

permit, including all conditions, shall be available at the project site during construction and maintenance of this project

8. The permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).

9. The permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.

Enforcement

10. Violations of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act must be reported in writing to the Wilmington District U.S. Army Corps of Engineers within 24 hours of the permittee's discovery of the violation.

Culverts

11. All authorized culverts will be installed to allow the passage of low stream flows and the continued movement of fish and other aquatic life as well as to prevent headcutting of the streambed. For all box culverts and for pipes greater than 48 inches in diameter, the bottom of the pipe will be buried at least one foot below the bed of the stream unless burial would be impractical and the Corps of Engineers has waived this requirement. For culverts 48 inches in diameter or smaller, the bottom of the pipe must be buried below the bed of the stream to a depth equal to or greater than 20 percent of the diameter of the culvert. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in disequilibrium of wetlands or streambeds or banks, adjacent to, upstream or downstream of the structures. In order to allow for the continued movement of bed load and aquatic organisms, existing stream channel

SPECIAL CONDITIONS (Action ID. 2009-00032); North Carolina Department of Transportation/TIP U4006)

widths and depths will be maintained at the inlet and outlet ends of culverts. Riprap armoring of streams at culvert inlets and outlets shall be minimized above the ordinary high water elevation in favor of bioengineering techniques such as bank sloping, erosion control matting and revegetation with deep-rooted, woody plants.

Pre-Construction Meeting

12. The permittee shall schedule a preconstruction meeting between its representatives, the contractor's representatives, and the Corps of Engineers, Raleigh Regulatory Field Office, NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all of the terms and conditions contained within this Department of the Army Permit. The permittee shall provide the USACE, Raleigh Regulatory Field Office, NCDOT Regulatory Project Manager, with a copy of the final plans at least two weeks prior to the preconstruction meeting along with a description of any changes that have been made to the project's design, construction methodology or construction timeframe. The permittee shall schedule the preconstruction meeting for a time when the USACE and North Carolina Division of Water Quality (NCDWQ) Project Managers can attend. The permittee shall invite the Corps and NCDWQ Project Managers a minimum of thirty (30) days in advance of the scheduled meeting in order to provide those individuals with ample opportunity to schedule and participate in the required meeting.

Borrow and Waste

13. To ensure that all borrow and waste activities occur on high ground and do not result in the degradation of adjacent wetlands and streams, except as authorized by this permit, the permittee shall require its contractors and/or agents to identify all areas to be used to borrow material, or to dispose of dredged, fill, or waste material. The permittee shall provide the USACE with appropriate maps indicating the locations of proposed borrow or waste sites as soon as the permittee has that information. The permittee will coordinate with the USACE before approving any borrow or waste sites that are within 400 feet of any streams or wetlands. All jurisdictional wetland lines on borrow and waste sites shall be verified by the Corps of Engineers and shown on the approved reclamation plans. The permittee shall ensure that all such areas comply with Special Condition b) of this permit, and shall

SPECIAL CONDITIONS (Action ID. 2009-00032); North Carolina Department of Transportation/TIP U4006)

require and maintain documentation of the location and characteristics of all borrow and disposal sites associated with this project. This information will include data regarding soils, vegetation and hydrology sufficient to clearly demonstrate compliance with the Special Condition b). All information will be available to the USACE upon request. NCDOT shall require its contractors to complete and execute reclamation plans for each waste and borrow site and provide written documentation that the reclamation plans have been implemented and all work is completed. This documentation will be provided to the Corps of Engineers within 30 days of the completion of the reclamation work.

✕ EEP Mitigation

14. NC-EEP STREAM MITIGATION: Compensatory mitigation for the loss of 548 linear feet of stream, associated with the proposed project, shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated November 24, 2008 from William D. Gilmore, EEP Director. Pursuant to the EEP Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003, the EEP will provide 998 linear feet of warm-water restoration equivalent stream mitigation in the Haw River basin (Hydrologic Cataloging Unit 03030002) by one year of the date of this permit. The 998 linear feet of warm water restoration equivalent stream mitigation results from 450 linear feet of stream impacts mitigated at a ratio of 2:1 and 98 linear feet of stream impacts mitigated at a ratio of 1:1. The NCDOT shall, within 30 days of the issue date of this permit, certify that sufficient funds have been provided to EEP to complete the required mitigation, pursuant to Paragraph V. of the MOA.

Applicant: North Carolina Department of Transportation		File Number: SAW 2009-00032	Date: June 2, 2009
Attached is:			See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
X	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL OR OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

If you have questions regarding this decision and/or the appeal process you may contact:
 Mr. Andrew Williams, Project Manager
 Raleigh Regulatory Field Office
 3331 Heritage Trade Drive, Suite 105
 Wake Forest, North Carolina 27587

If you only have questions regarding the appeal process you may also contact:
 Ms. Jean B. Manuele
 Chief, Raleigh Regulatory Field Office
 3331 Heritage Trade Drive, Suite 105
 Wake Forest, North Carolina 27587

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

 Signature of appellant or agent.

Date:

Telephone number:

DIVISION ENGINEER:
 Commander
 U.S. Army Engineer Division, South Atlantic
 60 Forsyth Street, Room 9M15
 Atlanta, Georgia 30303-3490

PROJECT NUMBER	U-4006	DATE	1/14
PROJECT TITLE	SR-1607	DESIGNER	P.E.
PROJECT LOCATION	SR-1607	PROJECT NUMBER	
PROJECT TYPE		PROJECT TITLE	
PROJECT STATUS		PROJECT LOCATION	
PROJECT OWNER		PROJECT TYPE	
PROJECT CONTRACT		PROJECT STATUS	
PROJECT AGREEMENT		PROJECT OWNER	
PROJECT PERMIT		PROJECT CONTRACT	
PROJECT RECORD		PROJECT AGREEMENT	
PROJECT AS-BUILT		PROJECT PERMIT	
PROJECT CLOSE-OUT		PROJECT RECORD	
PROJECT ARCHIVE		PROJECT AS-BUILT	
PROJECT DELETED		PROJECT CLOSE-OUT	
PROJECT RESTORED		PROJECT ARCHIVE	
PROJECT RECOVERED		PROJECT DELETED	
PROJECT REINSTALLED		PROJECT RESTORED	
PROJECT REPAIRED		PROJECT RECOVERED	
PROJECT REPLACED		PROJECT REINSTALLED	
PROJECT REWORKED		PROJECT REPAIRED	
PROJECT REDESIGNED		PROJECT REPLACED	
PROJECT RECONSTRUCTED		PROJECT REWORKED	
PROJECT REFINISHED		PROJECT REDESIGNED	
PROJECT REFINISHED		PROJECT RECONSTRUCTED	
PROJECT REFINISHED		PROJECT REFINISHED	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

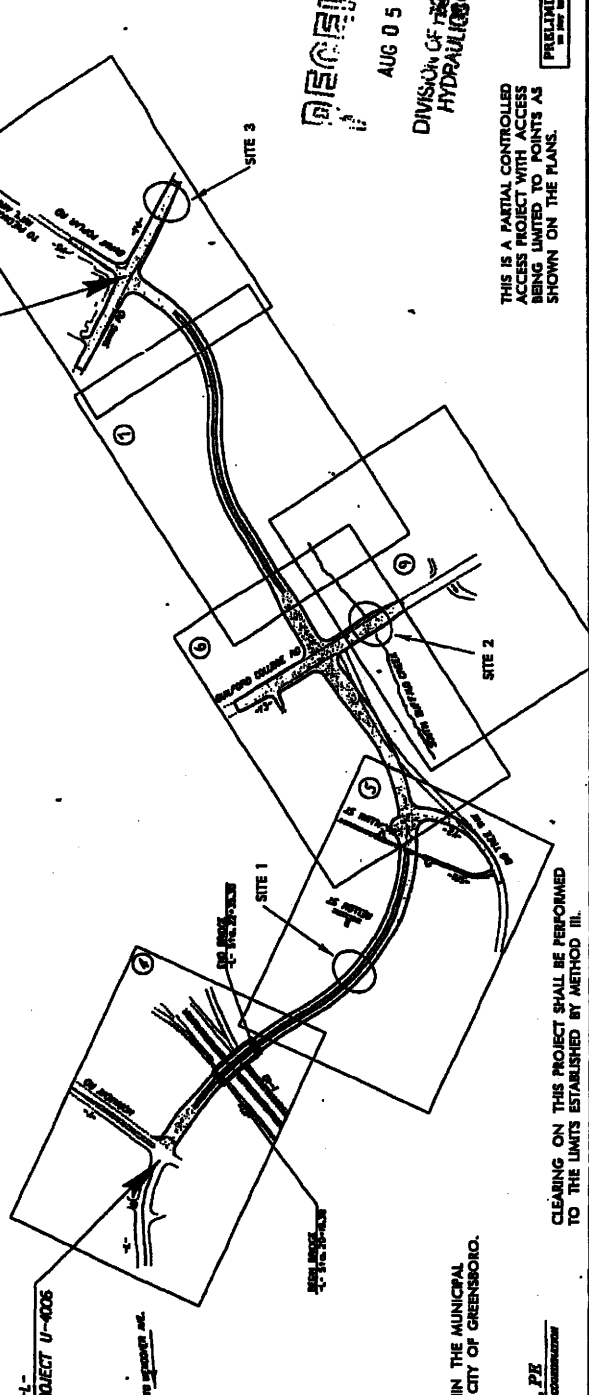
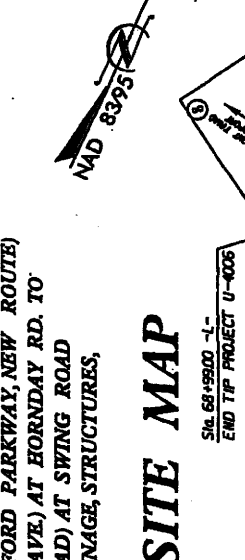
GUILFORD COUNTY

LOCATION: GREENSBORO SR 4126 (BRIDFORD PARKWAY, NEW ROUTE)
FROM SR 1541 (WENDOVER AVE.) AT HORNDAY RD. TO
SR 1607 (BURNT POPLAR ROAD) AT SWING ROAD

TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURES,
AND SIGNALS

U-4006: STREAM SITE MAP

Sta. 68+99.00 -1-
END TIP PROJECT U-4006



THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF GREENSBORO.

PROJECT CONTRACTOR
CATHEY HOUSER, PE
REGISTERED PROFESSIONAL ENGINEER

DESIGN DATA
ADT 2008 = 23,162
ADT 2028 = 31,469
DHW = 11 %
D = 60 %
T = 6 %
V = 40 MPH
* TST 1% DUAL 5%

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

PROJECT LENGTH
LENGTH OF ROADWAY TIP PROJECT U-4006 = 0.982 miles
LENGTH OF STRUCTURE TIP PROJECT U-4006 = 0.041 miles
TOTAL LENGTH TIP PROJECT U-4006 = 1.023 miles

THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.

PRELIMINARY PLANS
AS PER THE SUBMITTALS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

HYDRAULICS ENGINEER

ROADWAY DESIGN ENGINEER

PROJECT NUMBER: U-4006

PROJECT TITLE: SR-1607

PROJECT LOCATION: SR-1607

PROJECT TYPE: PAVING

PROJECT STATUS: PRELIMINARY

PROJECT OWNER: GREENSBORO

PROJECT CONTRACT: U-4006

PROJECT AGREEMENT: U-4006

PROJECT PERMIT: U-4006

PROJECT RECORD: U-4006

PROJECT AS-BUILT: U-4006

PROJECT CLOSE-OUT: U-4006

PROJECT ARCHIVE: U-4006

PROJECT DELETED: U-4006

PROJECT RESTORED: U-4006

PROJECT RECOVERED: U-4006

PROJECT REINSTALLED: U-4006

PROJECT REPAIRED: U-4006

PROJECT REPLACED: U-4006

PROJECT REWORKED: U-4006

PROJECT REDESIGNED: U-4006

PROJECT RECONSTRUCTED: U-4006

PROJECT REFINISHED: U-4006

PROJECT NUMBER	U-4006
PROJECT TITLE	SR-1607
PROJECT LOCATION	SR-1607
PROJECT TYPE	P.E.
PROJECT STATUS	
PROJECT OWNER	
PROJECT CONTRACT	
PROJECT AGREEMENT	
PROJECT PERMIT	
PROJECT RECORD	
PROJECT AS-BUILT	
PROJECT CLOSE-OUT	
PROJECT ARCHIVE	
PROJECT DELETED	
PROJECT RESTORED	
PROJECT RECOVERED	
PROJECT REINSTALLED	
PROJECT REPAIRED	
PROJECT REPLACED	
PROJECT REWORKED	
PROJECT REDESIGNED	
PROJECT RECONSTRUCTED	
PROJECT REFINISHED	

GRAPHIC SCALES

PLANS: 1" = 50'

PROFILE (HORIZONTAL): 1" = 50'

PROFILE (VERTICAL): 1" = 20'

ARCADIS ENGINEERING

PROJECT MANAGER: STEVE SMALLWOOD, P.E.

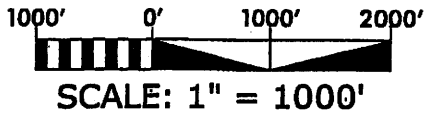
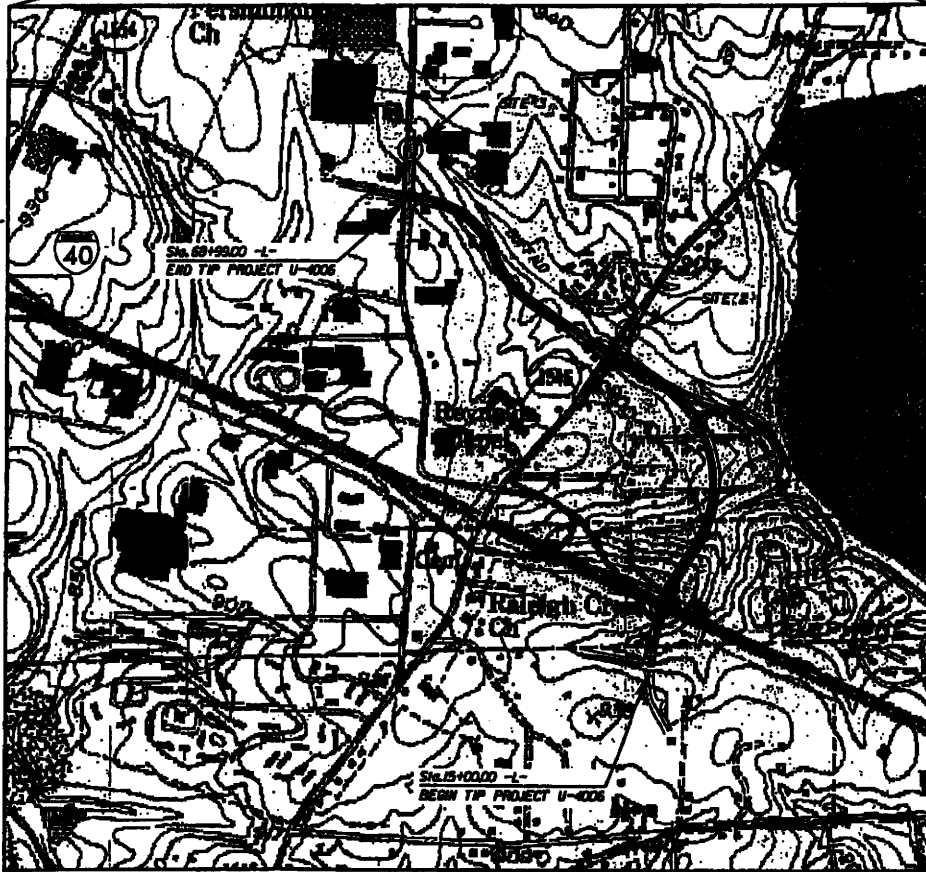
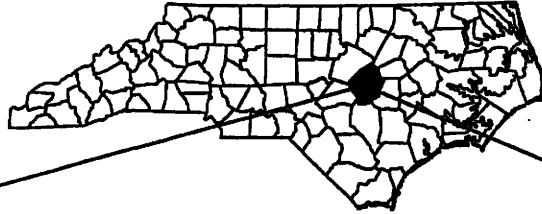
DATE OF WAY DATE: AUGUST 19, 2008

LETTERING DATE: AUGUST 19, 2008

RECEIVED
AUG 05 2008
DIVISION OF HIGHWAYS
HYDRAULICS UNIT

PROJECT: U-4006

VICINITY MAP



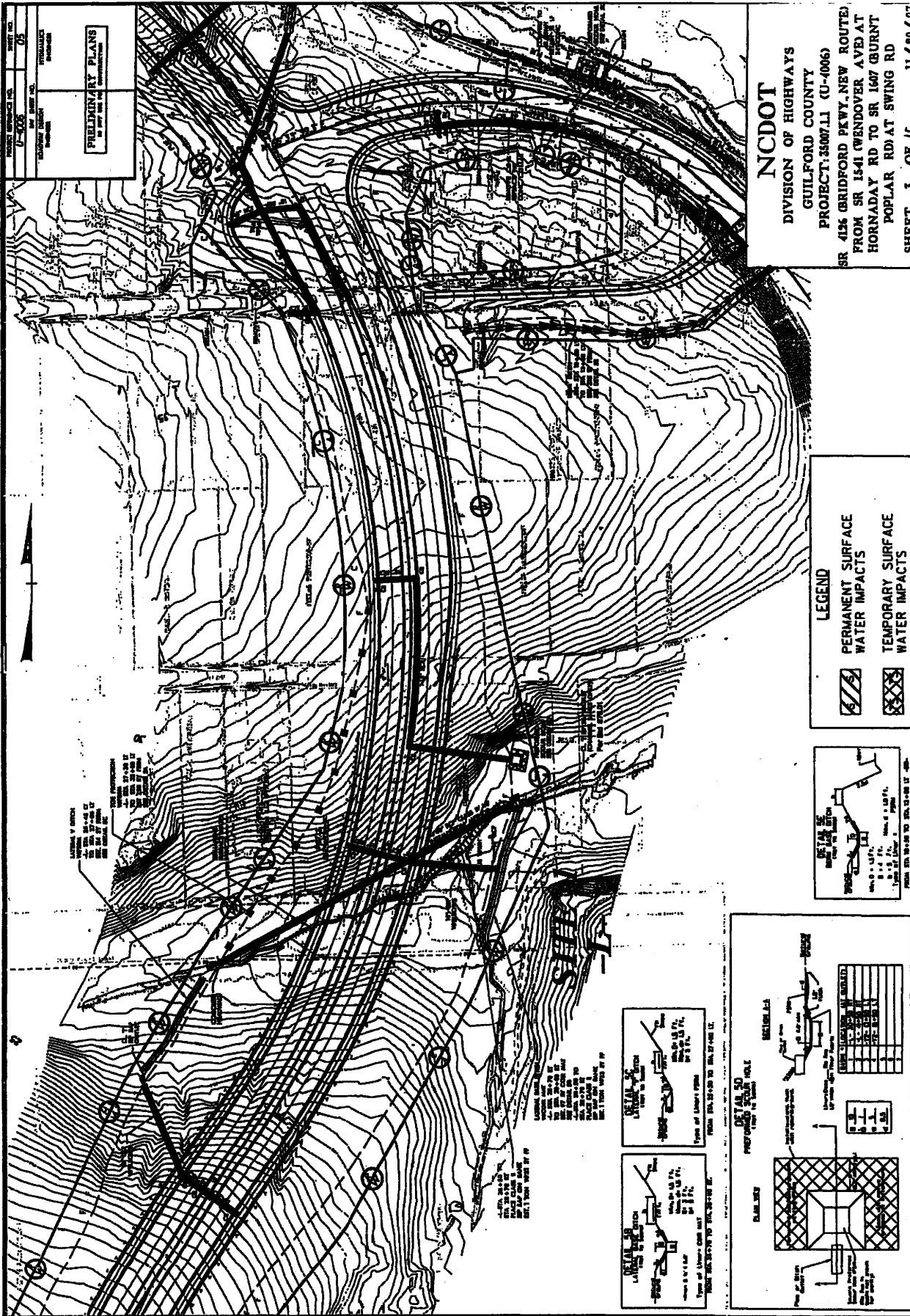
N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
GUILFORD COUNTY
PROJECT: 35007.L1 (U-4006)

SR 4156 (BRIDFORD PKWY, NEW ROUTE)
FROM SR 1541 (WENDOVER AVE) AT HORNADAY RD
TO SR 1667 (BURNT POPLAR RD) AT SWING RD

SHEET 2 OF 14 11/20/07

Plan/Drawing
Sheet 2 of 14

Action Id: 2009-00032
 Sheet 3 of 13



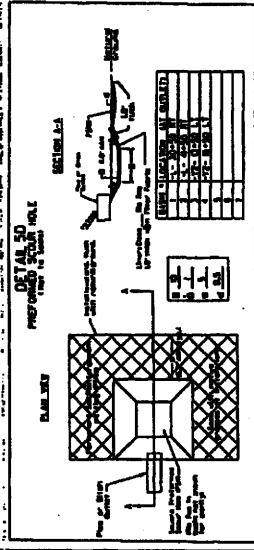
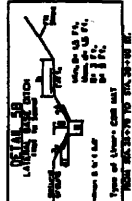
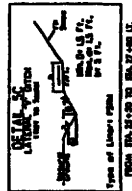
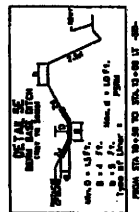
PROJECT NO.	03
DATE	03/11/11
DESIGNED BY	U-100
CHECKED BY	U-100
APPROVED BY	U-100

PRELIMINARY PLANS
 FOR THE PROPOSED
 HIGHWAY PROJECT

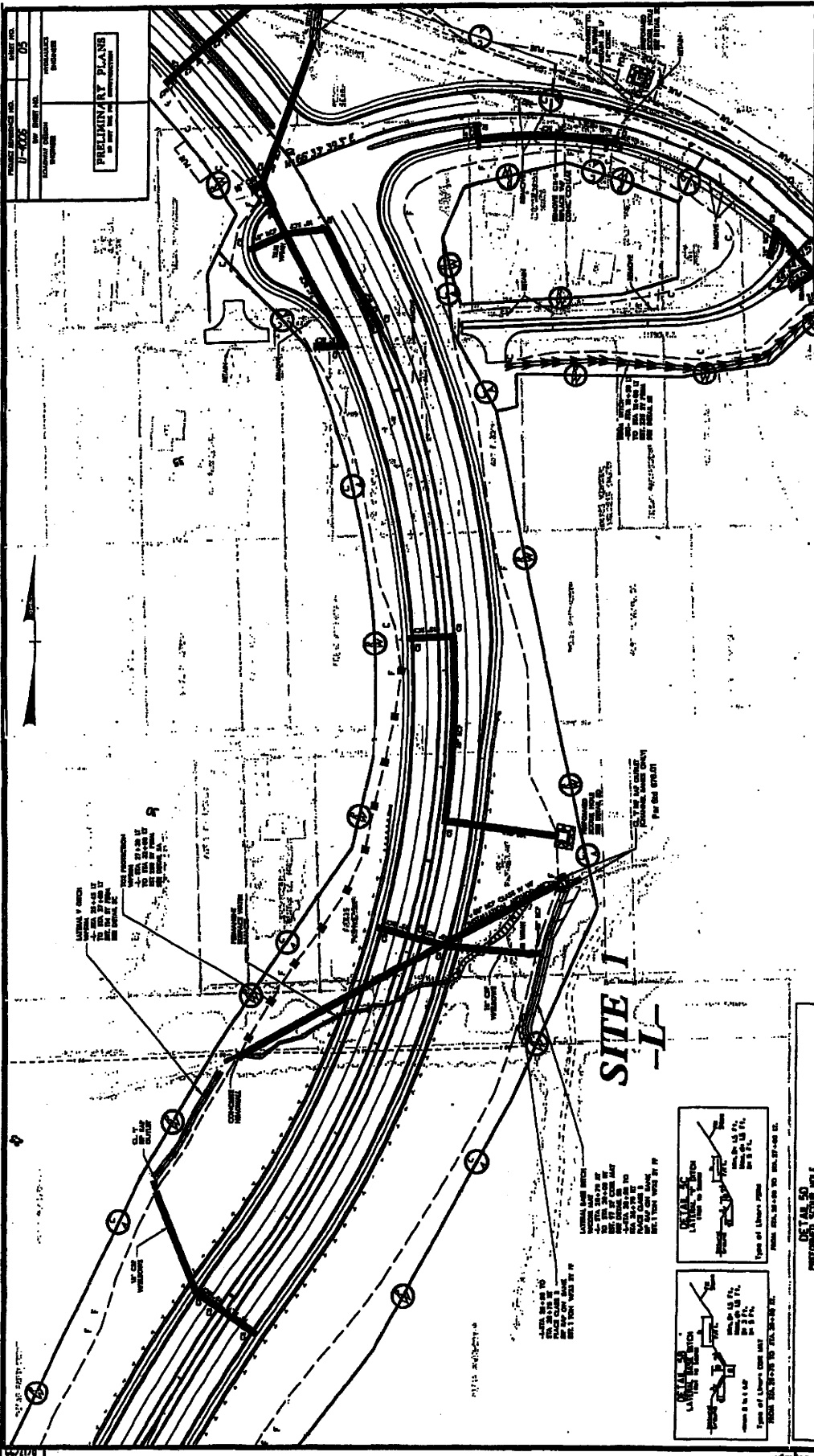
NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 350711 (U-4006)
 SR 4156 BRIDFORD PKWY, NEW ROUTE/
 FROM SR 1541 (WENDOVER AVENUE) AT
 HORNADAY RD TO SR 1507 BURNT
 POPLAR RD AT SWING RD
 SHEET 3 OF 13

LEGEND

	PERMANENT SURFACE WATER IMPACTS
	TEMPORARY SURFACE WATER IMPACTS



Action Id: 2009-00032
 Sheet 4 of 13



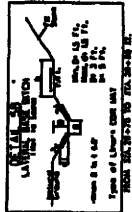
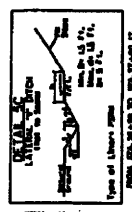
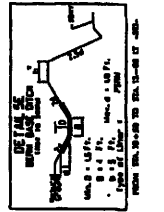
PLANNING DIVISION
 PROJECT NO. 11-006
 SHEET NO. 05
 PRELIMINARY PLANS
 FOR THE
 IMPROVEMENTS

NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 3500711 (U-006)
 SR 4186 GRIDFORD PEWY-NEW ROUTED
 FROM SR 15-41 (WENDOVER AVE) AT
 HORNADAY RD TO SR 1607 (BURNET
 POPLAR RD) AT SWING RD
 SHEET 4 OF 15 11/20/07

LEGEND

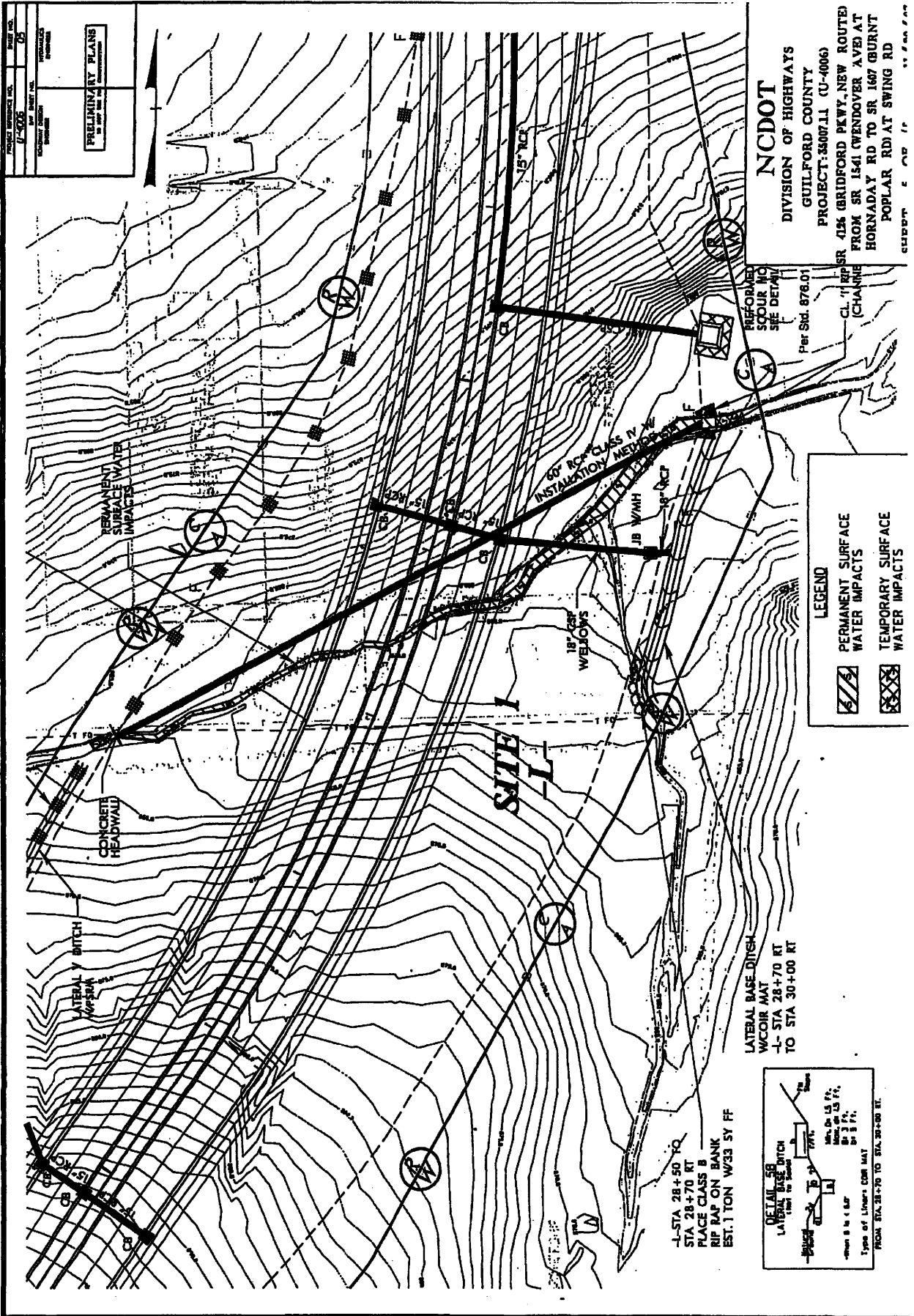
PERMANENT SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS



DETAIL C

Action Id: 2009-00032
Sheet 5 of 13



PROJECT NUMBER NO. 34007.11
 SHEET NO. 5
 PRELIMINARY PLANS
 OF THE
 BRIDGEMAN ROAD
 PROJECT

NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 34007.11 (U-4006)
 SR 41% BRIDGEMAN PKWY, NEW ROUTED
 FROM SR 1541 (WENDOVER AVE) AT
 HORNADAY RD TO SR 1607 (BURNT
 POPLAR RD) AT SWING RD

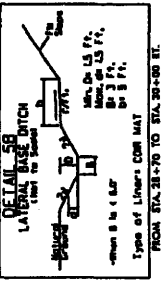
LEGEND

PERMANENT SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

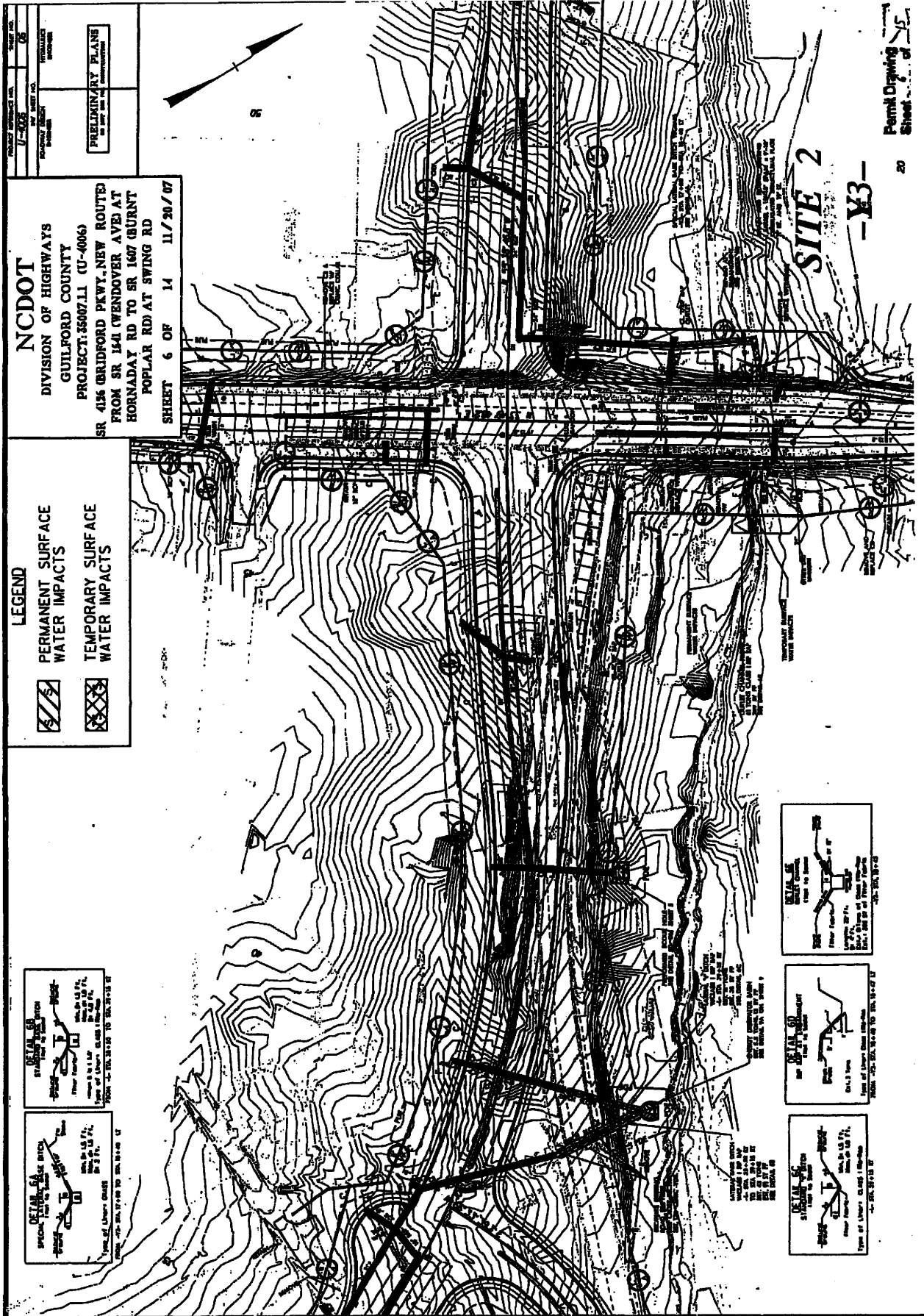
LATERAL BASE DITCH
 WCOIR MAT
 TO STA 30+00 RT

— STA 28+50 TO
 STA 28+70 RT
 PLACE CLASS B
 RIP RAP ON BANK
 EST. 1 TON W33 SY FF



INCHES

Action Id: 2009-00032
Sheet 6 of 13



PROJECT NUMBER: U-4066
 SHEET NO: 06
 PRELIMINARY PLANS
 FOR THE
 CONSTRUCTION OF

NC DOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 36007.11 (U-4066)
 SR 415 BRIDFORD PKWY., NEW ROUTE)
 FROM SR 1541 (WENDOVER AVE) AT
 HORNADAY RD TO SR 1607 (BURNT
 POPLAR RD) AT SWING RD
 SHEET 6 OF 14 11/30/07

LEGEND

PERMANENT SURFACE
 WATER IMPACTS

TEMPORARY SURFACE
 WATER IMPACTS

DETAIL A
 SPECIAL CASE SLOPE
 FROM 1:1 TO 1:1.5
 MIN. 10 FT. WIDE
 TOP OF CURB TO TOP OF SLOPE
 SEE PLAN FOR LOCATION

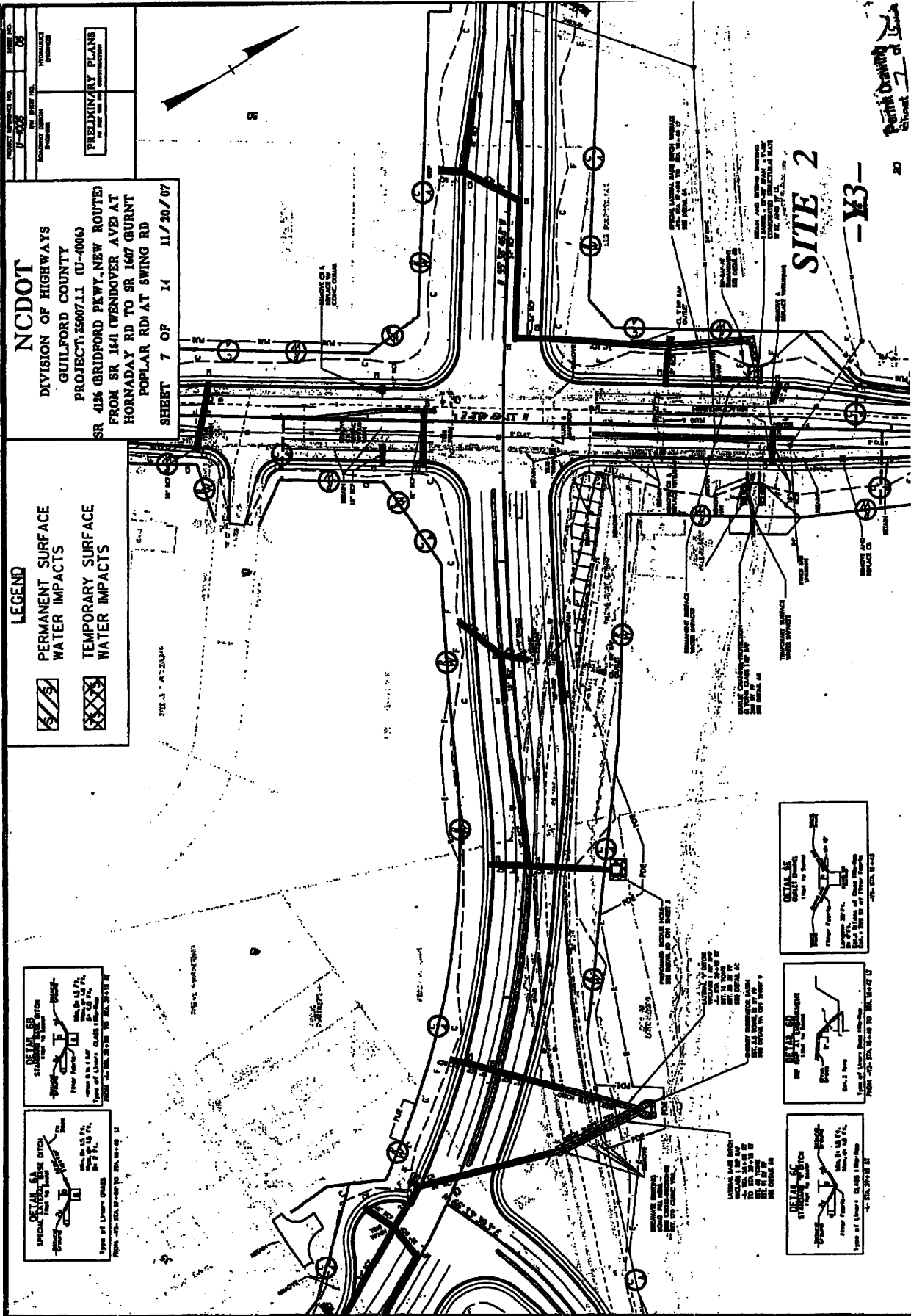
DETAIL B
 SPECIAL CASE SLOPE
 FROM 1:1 TO 1:1.5
 MIN. 10 FT. WIDE
 TOP OF CURB TO TOP OF SLOPE
 SEE PLAN FOR LOCATION

DETAIL C
 SPECIAL CASE SLOPE
 FROM 1:1 TO 1:1.5
 MIN. 10 FT. WIDE
 TOP OF CURB TO TOP OF SLOPE
 SEE PLAN FOR LOCATION

DETAIL D
 SPECIAL CASE SLOPE
 FROM 1:1 TO 1:1.5
 MIN. 10 FT. WIDE
 TOP OF CURB TO TOP OF SLOPE
 SEE PLAN FOR LOCATION

Permit Drawing
 Sheet 6 of 13

Action Id: 2009-00032
Sheet 7 of 13



NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 25007.11 (U-006)
 SR 4156 GRIDFORD PKWT, NEW ROUTED)
 FROM SR 1541 (WENDOVER AVED AT
 HORNADAY RD TO SR 1607 GURNT
 POPLAR RD AT SWING RD

SHEET 7 OF 14 11/20/07

LEGEND

PERMANENT SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

DETAIL 50
 SPECIAL BRIDGE SECTION
 FROM POINT A TO POINT B
 TYPE OF LUMBER: CLASS 1
 10'-0" x 10'-0" x 10'-0" TO 10'-0" x 10'-0" x 10'-0"

DETAIL 55
 SPECIAL BRIDGE SECTION
 FROM POINT C TO POINT D
 TYPE OF LUMBER: CLASS 1
 10'-0" x 10'-0" x 10'-0" TO 10'-0" x 10'-0" x 10'-0"

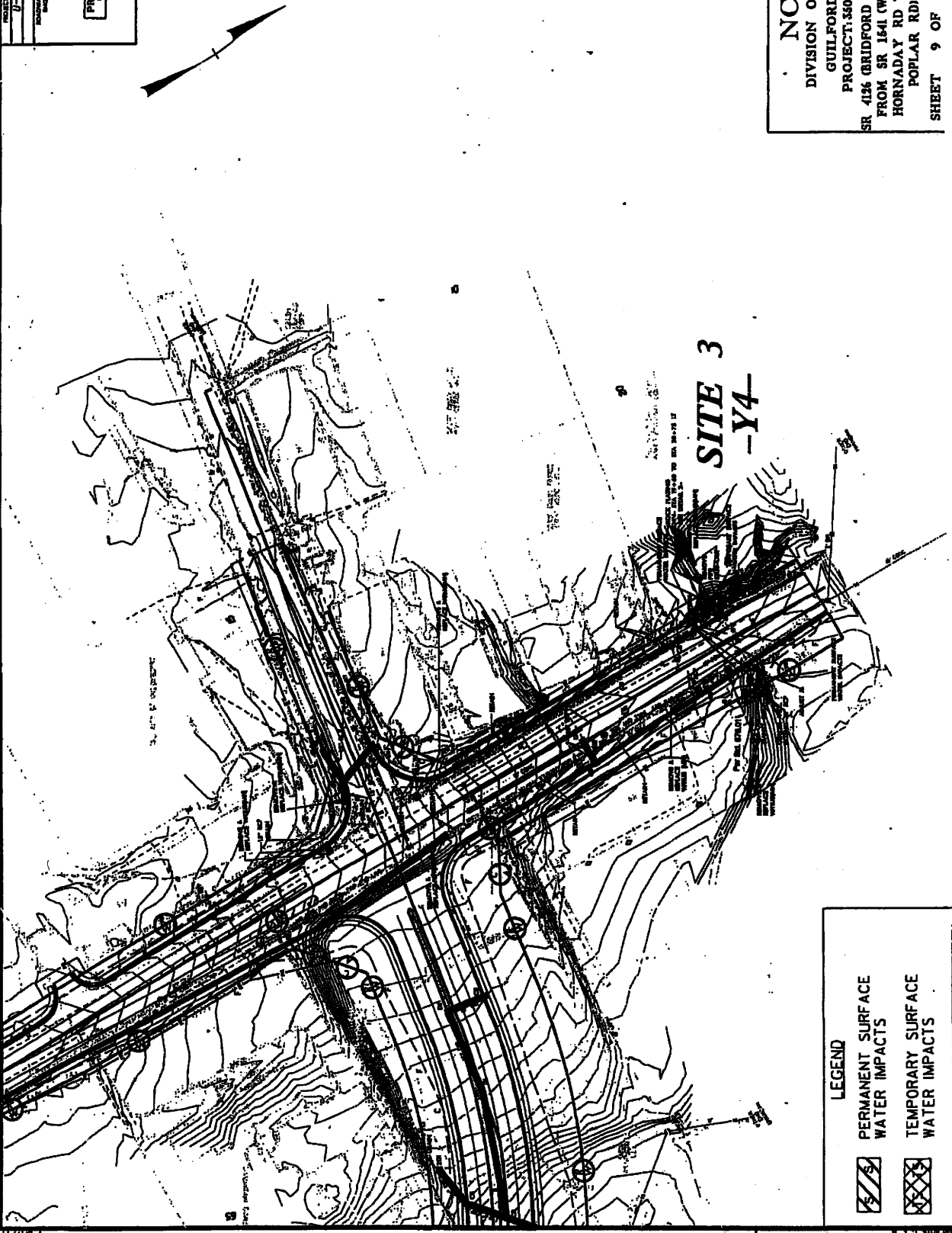
DETAIL 50
 SPECIAL BRIDGE SECTION
 FROM POINT E TO POINT F
 TYPE OF LUMBER: CLASS 1
 10'-0" x 10'-0" x 10'-0" TO 10'-0" x 10'-0" x 10'-0"

DETAIL 55
 SPECIAL BRIDGE SECTION
 FROM POINT G TO POINT H
 TYPE OF LUMBER: CLASS 1
 10'-0" x 10'-0" x 10'-0" TO 10'-0" x 10'-0" x 10'-0"

Permit Drawing of 1524
Sheet 7 of 13

PROJECT NUMBER U-4006	SHEET NO. 09
DATE 11/30/07	SCALE AS SHOWN
PRELIMINARY PLANS BY DATE AND NUMBER	

NCDOT
DIVISION OF HIGHWAYS
GUILFORD COUNTY
PROJECT: 3507.11 (U-4006)
SR 4126 (BRIDFORD PKWY, NEW ROUTE)
FROM SR 1641 (WENDOVER AVE) AT
HORNADAY RD TO SR 1687 (BURNT
POPLAR RD) AT SWING RD
SHEET 9 OF 15 11/30/07



LEGEND

	PERMANENT SURFACE WATER IMPACTS
	TEMPORARY SURFACE WATER IMPACTS

8/17/09

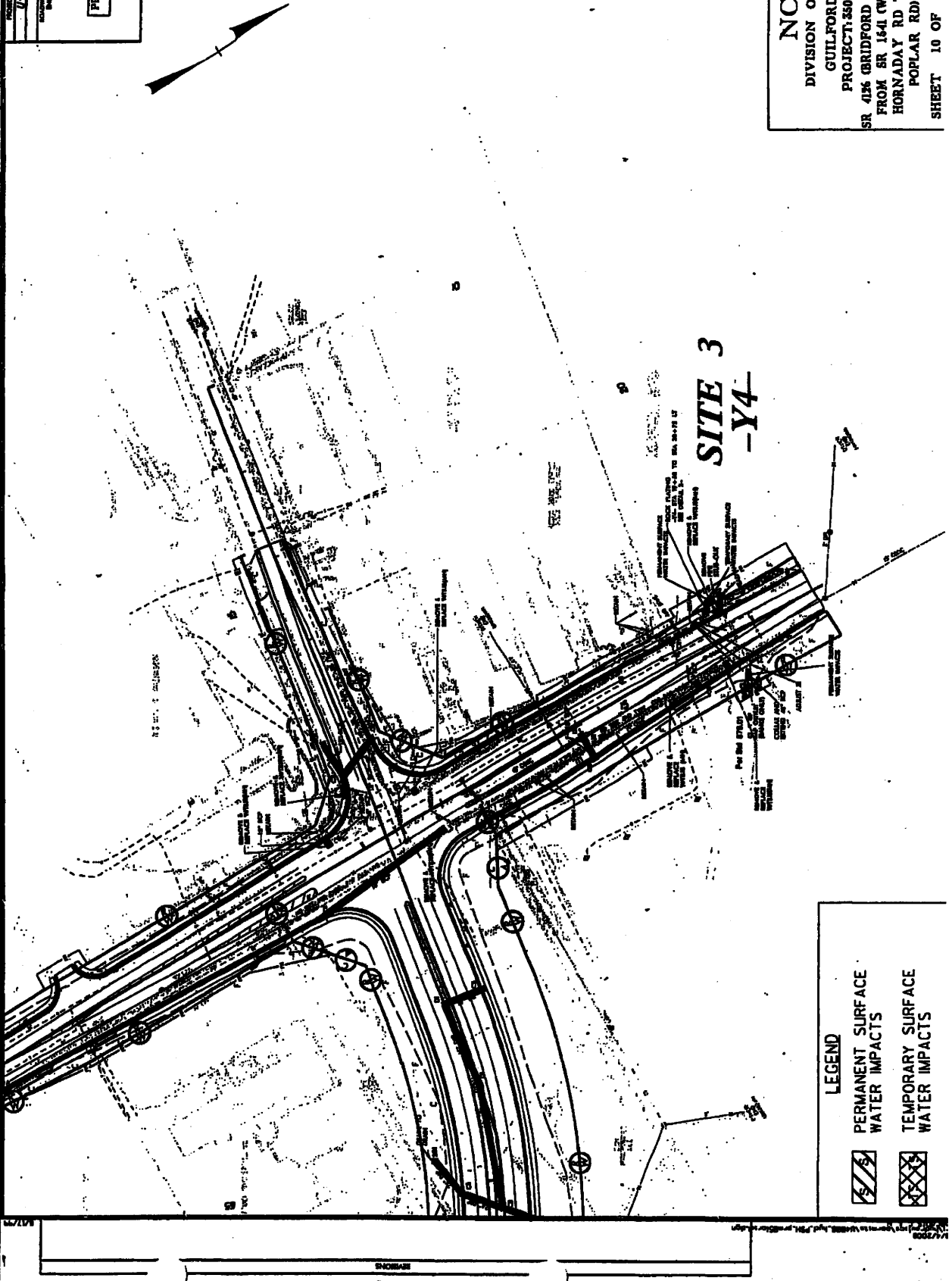
8/17/09

201

PROJECT NUMBER	11-000
DATE	08
DESIGNER	HYDRAULIC ENGINEERS
CHECKER	
APPROVED	



PRELIMINARY PLAN
 NOT TO BE USED FOR CONSTRUCTION

NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 6600711 (U-006)
 SR 4156 BRIDFORD PKWY. NEW ROUTE
 FROM SR 1641 (WENDOVER AVE) AT
 HORNADAY RD TO SR 1607 (BURNT
 POPLAR RD) AT SWING RD
 SHEET 10 OF 15 11/20/07



**SITE 3
 -Y4-**

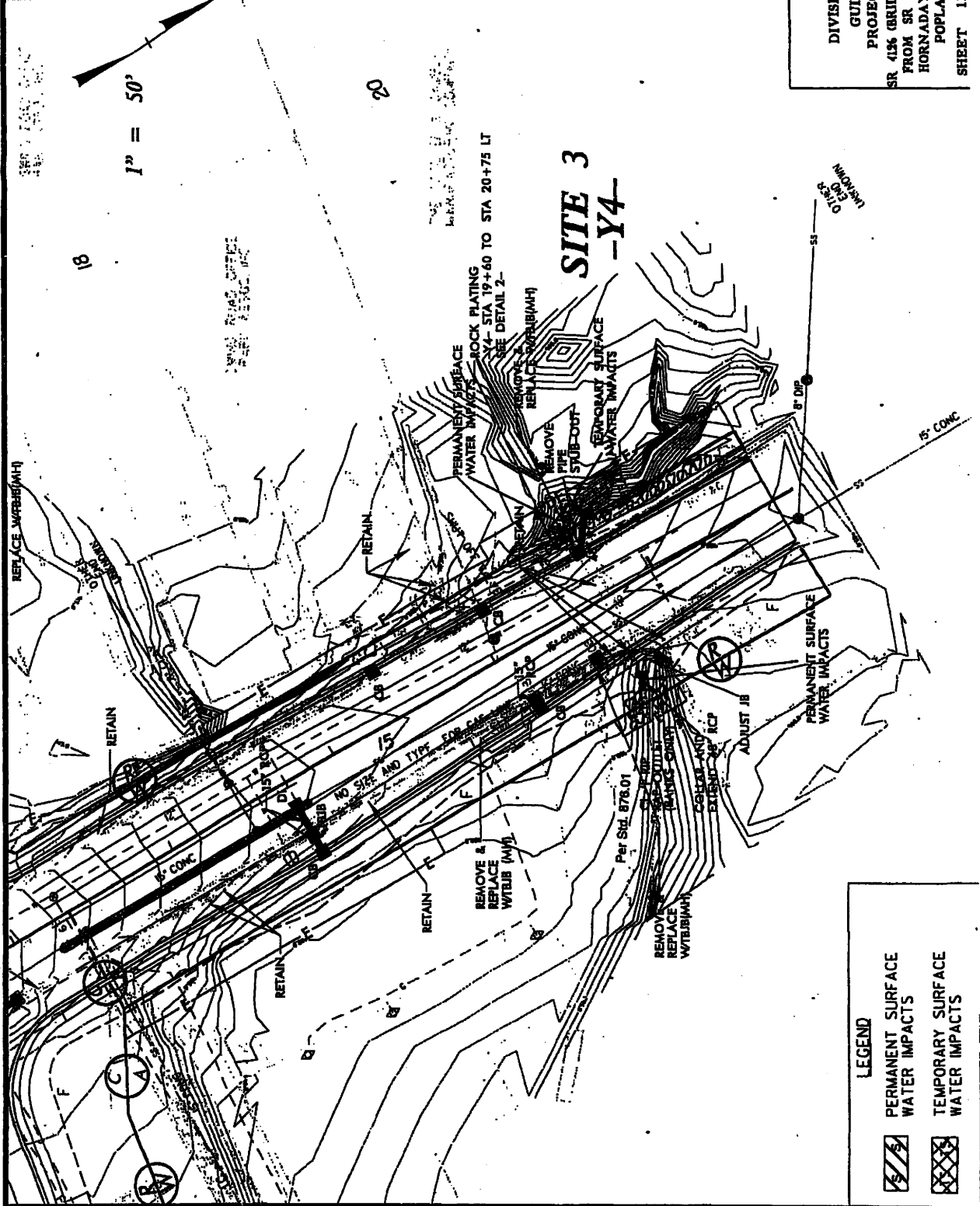
LEGEND

	PERMANENT SURFACE WATER IMPACTS
	TEMPORARY SURFACE WATER IMPACTS

PROJECT NUMBER: 11-008	SHEET NO. 11
DATE: 11/20/07	
DESIGNED BY: [REDACTED]	CHECKED BY: [REDACTED]
PRELIMINARY PLANS DO NOT BE USED FOR CONSTRUCTION	

202

NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 35007.11 (U-4006)
 SR 426 BRIDFORD PKWY, NEW ROUTE
 FROM SR 154 (WENDOVER AVE) AT
 HORNADAY RD TO SR 1607 (BURNT
 POPLAR RD) AT SWING RD
 SHEET 11 OF 15 11/20/07



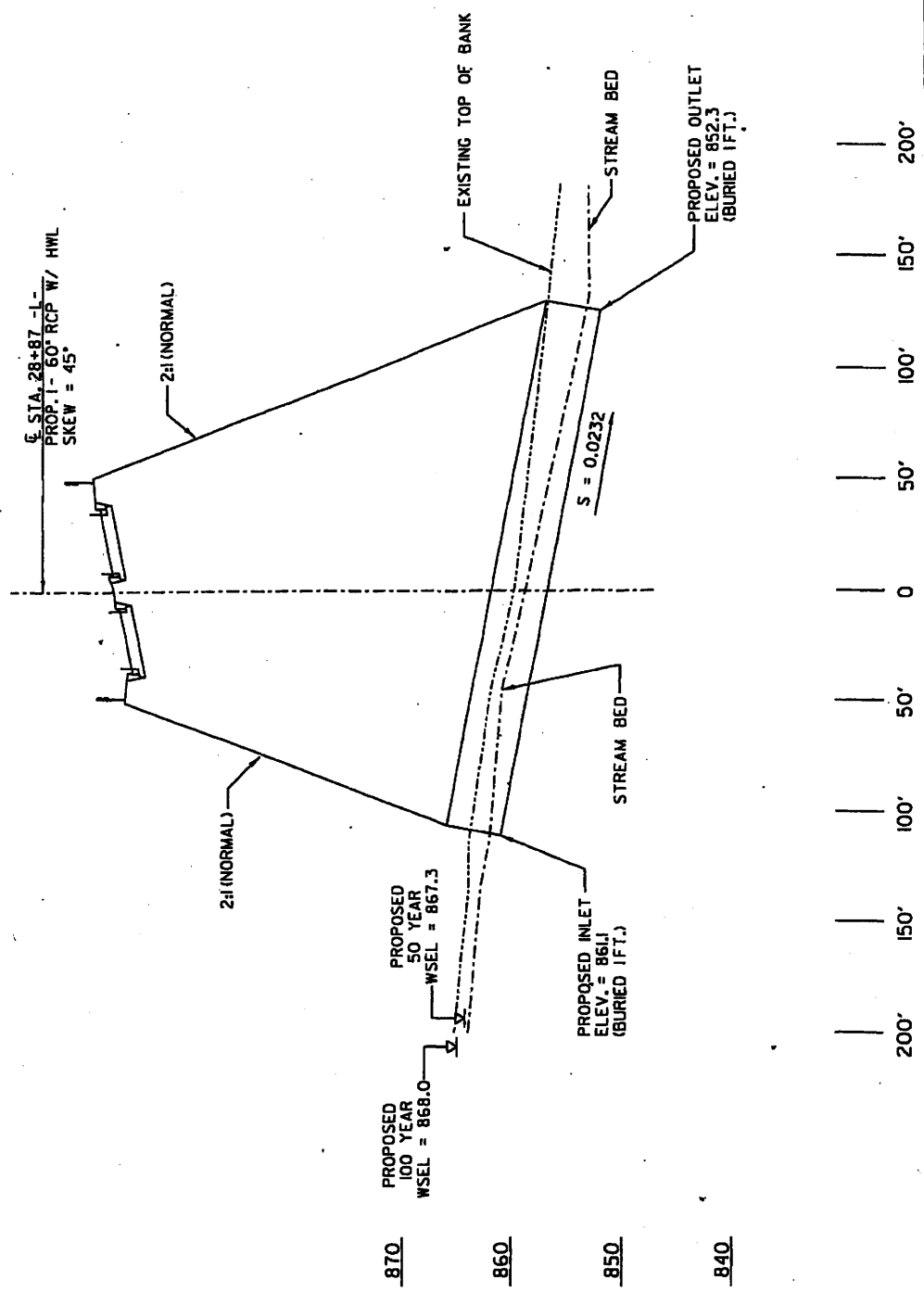
LEGEND

	PERMANENT SURFACE WATER IMPACTS
	TEMPORARY SURFACE WATER IMPACTS

PROJECT NUMBER	11-225
DATE	02-25
DESIGNED BY	HYDRAULICS
CHECKED BY	HYDRAULICS
APPROVED BY	HYDRAULICS

PRELIMINARY PLANS
 DO NOT SCALE

203



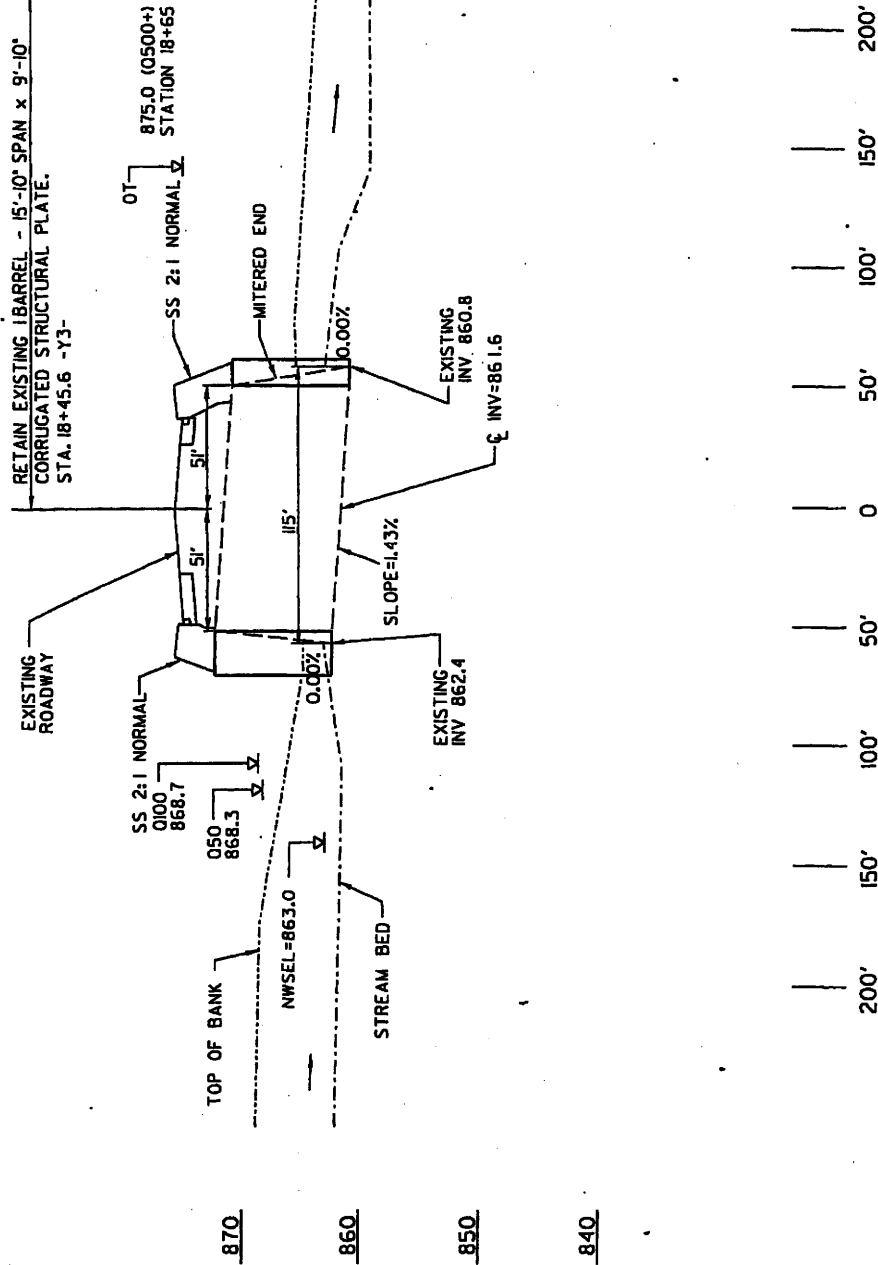
NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 25007.11 (U-4006)
 SR 41% BRIDFORD PKWY. NEW ROUTE
 FROM SR 144 (WENDOVER AVENUE) AT
 HORNADAY RD TO SR 1607 (BURNT
 POPLAR RD) AT SWING RD

PROFILE ALONG STRUCTURE
 SITE 1

SCALE:
 H = 50' HORIZONTAL
 V = 40' VERTICAL

PROJECT NUMBER 0-200	SHEET NO. 13
DATE 11/11/09	BY J. W. B. / J. W. B.
PRELIMINARY PLANS TO BE USED FOR INFORMATION ONLY	

NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 35007.11 (U-4006)
 SR 4156 BRIDFORD PKWY-NEW ROUTE
 FROM SR 1541 WENDOVER AVE AT
 HORNADAY RD TO SR 1607 BURNT
 POPLAR RD AT SWING RD



PROFILE ALONG STRUCTURE

SITE 2

SCALE:
 H = 50' HORIZONTAL
 V = 10' VERTICAL

WETLAND PERMIT IMPACT SUMMARY													
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS					
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation In Wetlands (ac)	Mechanized Clearing In Wetlands (ac)	Hand Clearing In Wetlands (ac)	Permanent SW Impacts (ac)	Temporary SW Impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temporary (ft)	Natural Stream Design (ft)	
1	-L- 27+30 LT to -L- 30+00 RT	60" RCP Bank Stabilization						0.04	<0.01	405	8	30	
2	-Y3- 18+45	15'-10" x 8'-10" Corrugated Structural Steel Plate Pipe Bank Stabilization						<0.01	0.01	36		59	
3	-Y4- 19+68	48" RCP Bank Stabilization						<0.01	<0.01	33		10	
								<0.01		28			
TOTALS:			0.00	0.00	0.00	0.00	0.00	0.04	0.01	548	99	99	0

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT 35007.1.1 U-4006
 SHEET OF August-06

Permit Drawing
 Sheet 15 of 15

Form Revised 3/01/05



207

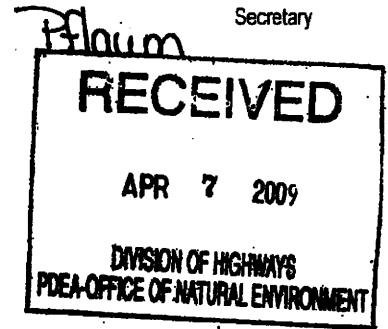
North Carolina Department of Environment and Natural Resources

Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

March 27, 2009



Dr. Gregory J. Thorpe, PhD., Manager
Project Development and Environmental Analysis Branch
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, NC 27699-1548

Subject: Correction to 401 Water Quality Certification for TIP Project No. U-4006, DWQ Project No. 20081797, Individual Certification No. 3782

Dear Dr. Thorpe:

This letter is in regards to the Individual 401 Water Quality Certification issued on March 4, 2009 for the referenced project authorizing stream impacts for the Proposed extension of SR 4126 (Bridford Parkway, new route) at Hornaday Rd. to Burnt Poplar Rd. at Swing Rd. in Guilford County. Condition 4 of the Water Quality Certification for the referenced project shall be replaced with the following condition:

- 4. For all construction activities occurring in 303(d) watersheds, NC DOT shall use /Design Standards in Sensitive Watersheds / [15A NCAC 4B .0124(a)-(e)]. However, due to the size of the project, NC DOT shall not be required to meet 15A NCAC 4B .0124(a) regarding the maximum amount of uncovered acres.

Please attach a copy of this letter with any copies of the original Water Quality Certification. All other conditions written into the previous Water Quality Certification for this project dated March 4, 2009 still apply except where superceded by this correction. If you have any questions please contact Amy Euliss at 336-771-4959

Sincerely,

Coleen H. Sullins,
Director

Cc: Andy Williams, US Army Corps of Engineers, Raleigh Field Office
Mike Mills, PE, Division 7 Engineer
Jerry Parker, Division 7 Environmental Officer
Kathy Matthews, US EPA (electronic copy only)
Travis Wilson, NC WRC
Amy Euliss, NC DWQ, Winston Salem Regional Office
File Copy



208

North Carolina Department of Environment and Natural Resources

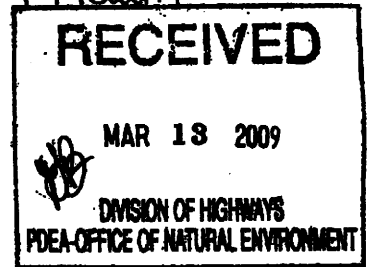
Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

Pflaum

March 4, 2009



Dr. Greg Thorpe, PhD., Manager
Planning and Environmental Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina, 27699-1548

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS for Proposed extension of SR 4126 (Bridford Parkway, new route) at Hornaday Rd. to Burnt Poplar Rd. at Swing Rd. in Guilford County, Federal Aid Project No. STP-4126(1), State Project 8.2496901, TIP U-4006

Dear Mr. Thorpe:

Attached hereto is a copy of Certification No. 003782 issued to The North Carolina Department of Transportation dated March 4, 2009.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,

Coleen H. Sullins
Director

Attachments

- cc: Andy Williams, US Army Corps of Engineers, Raleigh Field Office
- Mike Mills, PE, Division 7 Engineer
- Jerry Parker, Division 7 Environmental Officer
- Kathy Matthews, Environmental Protection Agency (electronic copy only)
- Travis Wilson, NC Wildlife Resources Commission
- Amy Euliss, DWQ Winston Salem Regional Office
- File Copy

Transportation and Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
Location: 2321 Crabtree Blvd., Raleigh, North Carolina 27604
Phone: 919-733-1786 \ FAX: 919-733-6893
Internet: <http://h2o.enr.state.nc.us/ncwetlands/>





North Carolina Department of Environment and Natural Resources

Division of Water Quality

Coleen H. Sullins

Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact 647 linear feet of jurisdictional streams in Guilford County. The project shall be constructed pursuant to the application dated received December 2, 2008. The authorized impacts are as described below:

Stream Impacts in the Cape Fear River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
1			413	30	443	413
2			69	59	128	0
3			66	10	76	0
Total			548	99	647	413

Total Stream Impact for Project: 647 linear feet

The application provides adequate assurance that the discharge of fill material into the waters of the Cape Fear River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application dated December 2, 2008 and received by the Division of Water Quality December 10, 2008. Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

Transportation and Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
Location: 2321 Crabtree Blvd., Raleigh, North Carolina 27604
Phone: 919-733-1786 \ FAX: 919-733-6893
Internet: <http://h2o.enr.state.nc.us/hcwetlands/>





North Carolina Department of Environment and Natural Resources

Division of Water Quality

Beverly Eaves Perdue
GovernorColeen H. Sullins
DirectorDee Freeman
Secretary**Condition(s) of Certification:**

1. Compensatory mitigation for 413 linear feet of impact to streams is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Ecosystem Enhancement Program (EEP), and that the EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated November 24, 2008 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the Tri-Party MOA signed on July 22, 2003 and the Dual-Party MOA signed on April 12, 2004.
2. At permit sites 2 and 3 burial of the pipe extensions are not required, unless the existing pipes are embedded. However, at permit site 1, placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by DWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NC DWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.
3. For the 99 linear feet of streams being impacted due to allow site access for equipment and construction of the new roadway and pipe, the sites shall be graded to its preconstruction contours and revegetated with appropriate native species.
4. All portions of the proposed project draining to 303(d) listed watersheds that are impaired due turbidity shall be designed, constructed, and operated with sediment and erosion control measures that meet Design Standards in Sensitive Watersheds [15A NCAC 4B .0124].
5. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If DWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, DWQ may reevaluate and modify this certification.
6. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.
7. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage.
8. A copy of this Water Quality Certification shall be maintained on site at the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.



North Carolina Department of Environment and Natural Resources

Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

9. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
10. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
11. The Permittee shall report any violations of this certification to the Division of Water Quality within 24 hours of discovery.
12. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.
13. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification.
14. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards.
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
16. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
17. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
18. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
19. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.

Transportation and Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
Location: 2321 Crabtree Blvd., Raleigh, North Carolina 27604
Phone: 919-733-1786 \ FAX: 919-733-6893
Internet: <http://h2o.enr.state.nc.us/ncwetlands/>

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North Carolina
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North Carolina Department of Environment and Natural Resources

Division of Water Quality
Coleen H. Sullins
DirectorBeverly Eaves Perdue
GovernorDee Freeman
Secretary

20. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers.
21. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions.
- * 22. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval.
23. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
24. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream.
- * 25. Upon completion of the project (including any impacts at associated borrow or waste site), the NCDOT Division shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit.

If this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 4th day of March 2009

DIVISION OF WATER QUALITY

Coleen H. Sullins
Director

WQC No. 003782

Transportation and Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
Location: 2321 Crabtree Blvd., Raleigh, North Carolina 27604
Phone: 919-733-1786 \ FAX: 919-733-6893
Internet: <http://h2o.enr.state.nc.us/ncwetlands/>

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DWQ Project No.: _____ County: _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

***Certificate of Completion**

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to DWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

If this project was designed by a Certified Professional

I, _____, as a duly registered Professional _____ (i.e., Engineer, Landscape Architect, Surveyor, etc.) in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____

STORM WATER MANAGEMENT PLAN

TIP No. U-4006
 Project No. 35007.1.1
 Guilford County

ROADWAY DESCRIPTION

The project involves an extension of the existing Bridford Parkway, along a new route, from Hornaday Road, to the intersection of Burnt Poplar Road with S. Swing Road. The project is located entirely within the city of Greensboro. The overall length of the project is approximately 1.02 miles. The proposed roadway is a multi-lane undivided highway. The project drainage system consists of cross pipes, subsurface storm drain systems with outfall protection, and ditches. Major stream crossings are shown below:

Table 1: Major Stream Crossings

Location	Stream Name	Drainage Area	Proposed Structure	Bury Depth
Site 1 L Station 28+70	Tributary to S. Buffalo Creek	51 ac	60 inch RCP	1.0 FT
Site 2 Y3 Station 18+45	S. Buffalo Creek	200 ac	15'-10" x 9'-10" CSP	N/A Extension
Site 3 Y4 Station 19+69	S. Buffalo Creek	12.5 ac	48 inch RCP	N/A Extension

ENVIRONMENTAL DESCRIPTION

The project is located in the Cape Fear River Basin. Stream impacts are anticipated where the project crosses the South Buffalo Creek at the sites listed above. Pipe outlet and channel bank protection measures were implemented at these sites. There are no wetlands that fall within the project boundaries.

BEST MANAGEMENT PRACTICES (BMPs)

The primary goal of BMPs is to prevent degradation of the state's surface waters from construction and operation of the highway system. BMPs are practices and procedures undertaken to prevent or reduce storm water pollution.

The BMPs and measures used at the major stream crossing sites are as follows:

Site 1 - 60 inch Reinforced Concrete Pipe (RCP)

The culvert is to be buried one (1) foot below the natural streambed. As with most cross pipe installations, the pipe was aligned and sloped to closely match that of the existing stream. A short realignment was required for the incoming tributary to the jurisdictional stream. In this case, the channel was lined with temporary coir matting along the banks only. A small amount of rip-rap is specified to be placed along the outer bank in the bend of this tributary. This is to prevent scouring of the stream and cutting into the toe of the adjacent fill embankment. As an added scour protection measure, rip-rap will be placed at the outlet of the pipe and junction with the tributary. The rip-rap will only be placed along the stream banks.

Site 2 – 16' x 11' Corrugated Structural Plate Pipe

In order to accommodate the road widening, an extension of the existing culvert was necessary at this site. The culvert is proposed to be extended 19 ft. on the upstream side and 11 ft. on the downstream side. A construction sequence was provided which will allow the stream to maintain flow during operations. Stilling basins were included as part of the sequencing to allow pumped affluent to settle out any sediment stirred as a result of construction and prior to transferring water back into the stream. In addition, rip-rap will be placed at the outlet to protect the stream banks from erosive velocities.

Site 3 - 48 inch RCP

In order to accommodate the road widening, an extension of the existing culvert was necessary at this site. In an effort to avoid invading the stream, slope stakes were pulled back from a normal 2 H:1V to 1 ½ H:1V and rock plating was used. Rock plating is designed to lessen the effects from potential erosive velocities down and along the toe of steep slopes. In addition, rip-rap will be placed at the outlet to protect the stream banks from erosive velocities.

The BMPs and measures used on this project on behalf of roadside drainage are as follows:

Preformed Scour Holes (PSHs)

PSHs are used at the following locations in an effort to diffuse concentrated, higher velocity flow from the storm drain outlet pipe into sheet flow prior to entering the surface water.

Y2 Station 13+50 LT

Y2 Station 16+50 LT

L Station 30+50 RT

L Station 41+50 RT

Rip-Rapped Energy Dissipator Basin

A dissipator basin is used on L at Station 39+15 RT to provide for rapid energy dissipation of scouring velocities exiting the storm drain outlet pipes in this area.

AVOIDANCE MEASURES

Monitoring wells are present in the HP Triad Properties, Inc. parcel (-L- Station 60+). In an effort to avoid contaminating the nearby stream, the existing drainage system will be plugged and abandoned. New outfalls in this area were placed such that they would not directly enter the stream. Ductile iron was chosen as the pipe material to eliminate the possibility of corrosion, and subsequent contamination of the water.